Round table discussion

J. Perinat. Med.
15 (1987) 461

Diagnosis of fetal lung maturity and antenatal treatment

Moderator: Uwe Lorenz

The first round table discussion covered the following main topics:

1. Indications for amniocentesis to determine antepartum lung maturity
2. Upper and lower gestational age limits for glucocorticoid treatment
   Alternatives to glucocorticoid treatment
3. Management of premature rupture of the amnion

Topic 1

There is an increasing tendency not to perform amniocentesis for determination of antepartum lung maturity despite the fact that it is thought to involve little risk under ultrasonic control. Most of the clinics represented continue to sample amniotic fluid for determination of lung maturity only in diabetic mothers and in cases of severe toxemia (DUDENHAUSEN). SCHELLENBERG samples only in diabetics but not in cases of preeclampsia, because here the clinical situation usually does not permit a longer waiting period. Amniocentesis for determination of lung maturity are now seldom performed at the Glasgow Gynecological Hospital as well (WHITTLE). As pointed out by ENHORNING, improved ultrasonic biometry now provides for a much better estimation of fetus size.

Topic 2

Opinions differ widely as to whether glucocorticoid therapy is of any value at all: advocates of glucocorticoid therapy (SCHELLENBERG, LORENZ, DUDENHAUSEN) consider it useful to start treatment between the 26th and 34th week of pregnancy. Beyond the 34th week of pregnancy, no attempt is made to delay birth; prior to that, a tocolysis is carried out for 48 hours with concomitant initiation of corticoid therapy. An indication for corticoid treatment is seldom seen in Scandinavia (HALLMAN) as well as in Cambridge (MORLEY). Here corticoids have only been given to 9% of the mothers of children born before the 30th week of pregnancy. As SCHELLENBERG points out, therapeutic results with corticoids are not very good prior to the 30th week of pregnancy. Concerning the lower treatment limit, OBLADEN argues that, in cases where a fetus is classified as viable and active neonatal intensive care measures are initiated by the pediatrician in the delivery room immediately after birth, the child must also be given the chance of prenatal therapy, even though the effect of corticoids is considered negligible prior to the 30th week of pregnancy. According to SCHELLENBERG, particularly boys profit at a low gestational age (before the 30th week of pregnancy) at the Auckland Clinic. BALLARD likewise found more favorable survival data after corticoid treatment in the weight group of 750–1000 g, thus corresponding to about the 27th week of pregnancy. As long as controlled studies are lacking on the results in extremely underweight children, SCHELLENBERG would apply corticoids in all cases where there are no contraindications. The first results of a combination therapy consisting of glucocorticoids plus TRH can be expected from Auckland around mid-1987.

Alternatives to glucocorticoid treatment: DUDENHAUSEN offers ambroxol as well as thyroxine, intra-amniotically applied. SCHELLENBERG sees no advantages in ambroxol as compared to glucocorticoids but rather a disadvantage in its long application period (5 days). He considers the range of indications for ambroxol to be very narrowly limited and believes it may perhaps be given to diabetic mothers. Results of a combination therapy with glucocorticoids, triiodothyronine and prolactin carried out by the Auckland study group are not yet ready for publication.

Topic 3

Concerning the management of premature rupture of membranes, LORENZ points out that various schools exist, the treatment tactics of some being tocolysis alone and of others tocolysis + antibiotics + glucocorticoids, while still others apply no therapy at all. WHITTLE does not perform tocolysis or give corticoids on premature rupture of membranes. He regards the onset of labor after the rupture of membranes as the result of the incipient intrauterine infection. DUDENHAUSEN performs tocolysis in patients prior to the 35th week of pregnancy, provided they show no signs of inflammation, and applies glucocorticoids (down to the 24th week of pregnancy). After the 35th week of pregnancy, an active procedure is adopted. SCHELLENBERG likewise performs tocolysis and applies glucocorticoids up to the 34th week of pregnancy in cases where there are no signs of inflammation.